

REMARKSA. REQUEST FOR RECONSIDERATION

Applicants have carefully considered the matters raised by the Examiner in the outstanding Office Action but remain of the position that patentable subject matter is present. Applicants respectfully request reconsideration of the Examiner's position based on the above Amendments to the Claims, the attached Declaration of Mr. Nakajima, and the following remarks.

B. CLAIM STATUS

Claims 1-3, 6-8, and 10 are pending in this Application. Claims 1 and 8 have been amended herein; and claim 4 has been cancelled.

Claim 1 has been amended herein to recite that the polymer layer contains a cellulose ester. Support for this amendment can be found on page 36 lines 3-4.

Claim 8 has been amended to be dependent upon claim 1. Claim 8 had been dependent upon claim 5 but claim 5 had been added to claim 1 previously. Thus, amending claim 8 to be dependent upon claim 1 is deemed acceptable.

C. INVENTION

One of the novel aspects of the present invention is the use of the polymer of Formula (1) which has been made from two separate monomers, wherein one of the monomers contains 2-9 fluorine atoms; and the polymer had been made by means of pearl polymerization.

In order to highlight this aspect of the present invention, the Declaration of Mr. Nakajima dated December 16, 2005, had been submitted.

In the Office Action the Examiner had criticized the data in this previously submitted Declaration because only one binder was employed, namely cellulose acetate propionate. In order to address this criticism, Applicants have amended claim 1 to specifically add the fact that cellulose ester is part of the back coating; and has run additional tests with a different cellulose ester and are presented herein by way of a Declaration.

The Examiner will note that the Declaration attached hereto is unexecuted, however, the data which is contained in the Declaration originated from Mr. Nakajima and the Original Declaration has been forwarded to Mr. Nakajima for execution. As soon as the Declaration has been executed, an executed copy will be filed in this Application. In the meantime, the Examiner is respectfully requested to consider the Declaration so as to expedite the Prosecution in this Application.

Specifically, tests were run using cellulose acetate butyrate. Otherwise, the tests were identical to the ones previously performed. For purposes of comparison, the previous data was included in the table attached to the Declaration.

As can be seen by the data, the photothermographic material that employs cellulose acetate butyrate as a binder performs in the same way as the previously tested material using cellulose acetate propionate. The new thermographic material that is tested is labeled N1 through N6. It can be seen that this material had coating characteristics of 5 and transportability of 0. These values are

identical to the previously tested material of samples 1 and 19-23. It can also be seen that the material made in accordance with the present invention is far superior to either the material made using a different polymer, namely sample numbers 24-28 or the material which is made with a polymer that is similar to the polymer of Formula (1) except that does not meet the fluorine content level.

Thus, the data in Table A attached to the Declaration shows that, where the polymer is produced by pearl polymerization and the polymer has a formula of Formula (1) with a fluorine content of 2-9, superior results are obtained, which are surprising and unexpected to one skilled in the art, see paragraph No. 9 of the Declaration.

Respectfully, the test results now presented are commensurate with the scope with amended claim 1 and support the fact that the present invention is unique and not obvious.

D. PRIOR ART REJECTION

Claims 1-4 and 6-8 had been rejected as being unpatentable over a combination of Sampei and Heitz; and claim 10 had been rejected as being unpatentable over a combination of Sampei, Heitz and Arimoto. The Examiner's basic position was that Sampei teaches a polymer that falls within the scope of the claims, albeit not made by pearl polymerization, and that Heitz teaches pearl polymerization as a preferred polymerization technique. Thus it would be obvious to one skilled in the art to employ Heitz' pearl polymerization for Sampei's material.

Applicants respectfully submit that such a combination is pure hindsight. Sampei was patented in 2001 while Heitz was patented in

1972. About 30 years transpired between the patenting of Heitz and the patenting of Sampei. Clearly, once Sampei made his invention, pearl polymerization was an available technique, as evidenced by Heitz. Furthermore, Sampei, if he considers pearl polymerization to be critical to his invention, could easily have disclosed the fact that his product was made by pearl polymerization.

What Applicants have discovered is that pearl polymerization for forming a polymer as recited in the claims, results in a superior back layer for a photothermographic dry imaging material. The combination of two references which are thirty years apart is nothing more than pure hindsight. As brought out previously, Sampei teaches a myriad of different chemical composition. Only a few of these chemical compositions have a formula that overlaps the polymer of the claims.

Sampei clearly did not recognize that pearl polymerization in combination with a few of his polymers could result in such a vast improvement in the back coating. As noted in Table A attached to the Declaration, the present invention has characteristics which are at least twice as good, if not five times as good as a material made in accordance with Sampei's teachings. The fact that Applicants have obtained improvements two times or more better than the prior art is strong evidence of the non-obviousness of the present invention.

Arimoto does not assist in providing any teachings that Sampei's material should be made by pearl polymerization, nor selecting a few of the specific polymers taught in Sampei over any of the other polymers taught in Sampei.

Respectfully, the combination of Sampei and Heitz to arrive at with the present invention is mere hindsight given the fact that Heitz

was available to Sampei when he made his invention and Sampei failed to recognize the improvements that can be provided by pearl polymerization in conjunction with a small number of his polymers.

E. 112 REJECTIONS

Claims 1-14, 6-8 and 10 had been rejected under the first paragraph of section 112, failing to comply with a written description; and under section 112, second paragraph as being indefinite. These rejections are based on the fact that the Application uses the term polymer and copolymer interchangeably to refer to the material which is made from monomer (i) and monomer (ii).

On pages 5 through 8, in the Summary of the Invention, the terms copolymer and polymer are used, essentially, interchangeably. Specifically, the polymer referred to in paragraph 2 on page 13 and in paragraph 1 on page 8 is the copolymer of the claims. It is submitted that it is clear, from the entire application, that when monomer (i) and monomer (ii) of claim 1 are pearl polymerized they form a polymer. Furthermore, it is submitted that one of skill in the art, when reading the specification, clearly understands this. Furthermore, it is submitted that one of skill in the art understands that the polymer formed from a pearl polymerization can be either referred to as polymer or copolymer. For that matter, a copolymer is simply a species of polymer and it is not improper to refer to a copolymer as a polymer. A polymer does not mean a homopolymer, albeit, that a copolymer does mean a polymer formed from different monomers. Thus, since that polymer by definition is broad enough to incorporate copolymer, it is submitted that it is not improper to refer to the

copolymer as a polymer in the Application. For purposes of definitiveness the claims have referred to the polymers as copolymers in order to emphasize the fact that there are two separate monomers, monomer (i) and monomer(ii) which are polymerized together to form a copolymer. Respectfully, the Specification and the claims are definite.

Claim 4 had been objected to as not further limiting the subject matter of claim 1. Claim 4 has been cancelled herein.


F. CONCLUSION

In view of the foregoing it is respectfully submitted that the application is in condition for allowance and such action is respectfully requested. Should any extensions of time or fees be necessary in order to maintain this Application in pending condition, appropriate requests are hereby made and authorization is given to debit Account # 02-2275.

Respectfully submitted,

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Encl: Declaration of Mr. Akihisa Nakajima